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REAL ESTATE

Vol. 2, No. 8 August 1989

OUTLOOK

A Monthly Forecast for the Economy and Real Estate

FORECAST SUMMARY

- According to the U.S. Department of Commerce, economic growth slowed in the second quarter, as the annual rate of growth of real Gross National Product expanded by a modest 1.7 percent. The slower pace, which marked the lowest rate since the third quarter of 1986, seems to be in line with the "soft landing" that the Federal Reserve has been aiming for.
- After months of steep increases, the consumer price index posted a modest 0.2 percent gain in June, while the producer price index actually declined 0.1 percent in the same period.
- The Federal Reserve allowed the federal funds rate to drop fifty basis p[illegible] to 9.0 percent in July. Financial institutions quickly followed suit and lowered the pri[illegible]e to 10.5 percent from 11.0 percent.
- Starts of privately owned homes jumped 7.0 percent in June to a seasonally adjusted annual rate of 1.4 million units. The increase (the first in five months) was not spurred by the long-awaited rebound of the single-family market, but rather by a 28.0 percent jump in the construction of multi-family units.
- Sales of new single-family homes continued to rise in June, climbing 5.5 percent to a seasonally adjusted annual rate of 670 thousand units. Sales have risen 20.9 percent over the past three months, from their 1989 low of a 555 thousand unit annual rate set in March.
- Encouraged by lower mortgage rates, sales of existing single-family homes moved forward for the first time in 1989, rising 5.9 percent in June to an annual rate of 3.4 million units.
- Despite the surge in existing home sales, prices increased only modestly in June, creeping up 0.6 percent to a median price of $93,200. The median price of a new home jumped 8.2 percent to $129,900, or 16.5 percent above the median price of a year ago.

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REALTOR®
Forecasting & Policy Analysis Division
NATIONAL ASSOCIATION OF REALTORS®
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The Birds and the Bees - But Mostly the Bees

by
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Real Estate Finance

Why are we so fascinated with bees? From Aristophanes to *Saturday Night Live*, bees have been a recurring theme. One of my sharpest memories of early television is the Wheat Honeys commercial on the old Wild Bill Hickcock show, mainly because they featured an animated character called Buffalo Bee. For years, our attention has been periodically diverted by the northward migration of "killer" bees. And, of course, bees along with other mutant forms of insects have been the villains (or heroes) of sci-fi movies. In effect, their social organization - the clustering together in hives with work responsibilities clearly delineated - makes bees, like ants, simultaneously an ideal for the human community and a monolithic terror from which we are saved only because of size differences.

Now technology has brought the beehive ideal a little closer to reality. The major upshot of the technological revolution through which we are living is an information explosion. We know more things more accurately about more people than could have ever, in the past, been imagined, much less accomplished. So we create human equivalents of bee hives and describe households by a list of characteristics that outline the particular cell of the hive that they inhabit. Marketing of consumer products now relies heavily on cluster analysis, which, like "rednecks," "urban pioneers," and "suburban sophisticates," can be based on whether they drive Broncos or Volvos or Camrys, eat Cheet-Os or Brie or tuna steaks, listen to George Strait or Yitzhak Perelman or Carly Simon, and watch "Roseanne," "Thirty Something" or "The Cosby Show." Using these breakdowns the test marketing of a given product can be carefully targeted to certain zip codes that contain the right cluster.

Of course, all this is both more complicated and less precise than applied above. But the fact remains that this information Veg-O-Matic has sliced, diced and chopped the American public and imposed, at least conceptually, a beehive on our society.

The implications of these developments extend beyond marketing of consumer products. Two major types of consumer information businesses are finance and real estate. As we absorb the baby boom and the baby bust, the ability to view the market through the metaphor of the beehive can be quite useful not only in each of these areas, but also in their overlap. Three comments are in order:

1. Niche marketing will become much more important. Especially in real estate, but also in financial services, small firms can survive and prosper by being the very best in a limited market. But without the ability to describe and predict certain carefully defined categories of the population, there is the real potential of specializing in an empty market. As an absurd example, specializing in ten-plus bedroom single-family homes for low income families does not seem to be a growth industry.

2. Customers are more sophisticated. Financial institutions can no longer claim the highest yields if that is not the case. Information about interest rates is simply too available. But conversely, knowing more about household groupings enables the specific design of financial products, ranging from the Knights of Columbus VISA credit card to a certificate of deposit whose return is predicated on the number of goals scored by the local box lacrosse team. The bottom line here is that successful competition requires that increasingly sophisticated customers be matched with an increasingly sophisticated appeal.

3. Service will be a key business attribute. Technology allows clustering, and at the same time cuts the cost of direct marketing. Most of the readers of this piece are accustomed to absorbing information off the printed page. Within five years, that majority will be composed of individuals who receive information most easily electronically. Being proficient at offering very well-defined products and services through visual imagery will become the best way to serve this market. But in a world where technique dominates, anyone can sell any product, and the lines between the selling of real estate and its financing begin to blur.

Any analogy breaks down if pushed too far, so it's time to stop. We are in fact deeply into a rapidly evolving information age that will create markets that are as tightly defined and intricately linked as the cells in a beehive. And those who can't accommodate those markets may be unpleasantly stung.

Outlook for the Economy and Real Estate

THE ECONOMIC OUTLOOK

According to the U.S. Department of Commerce, economic growth slowed in the second quarter, as the annual rate of growth of real Gross National Product expanded by a modest 1.7 percent. The slower pace, which marked the lowest rate since the third quarter of 1986, appears to be right in line with the "soft landing" that many economists have forecasted, and the Fed has hoped for. Despite the rather high rate of inflation (5.2 percent as measured by the GNP price index in the second quarter), the slowdown is likely to convince the Fed that its credit tightening efforts have gone far enough, which could mean lower short-term interest rates in the second half of this year. But few economic reports go unchallenged and this GNP release was no exception: for some, it has heightened concerns that a recession could be waiting in the wings.

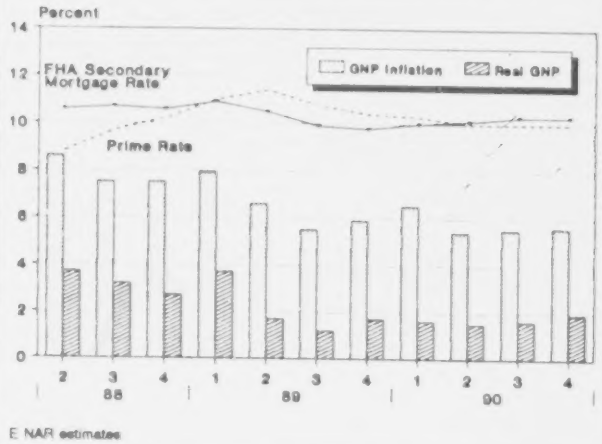
Each July, Government economists revise the nation's economic ledger by releasing three years worth of revised estimates for the National Income and Product Accounts. Overall, the economy has been growing at a faster rate than previously estimated: an average annual rate of 3.6 percent rather than the previous estimate of 3.3 percent during the 1986-88 period; and 4.4 percent in 1988 alone -- the fastest annual rate of expansion since 1984.

For the most part, the composition of second quarter non-farm growth did not differ much from that of the first quarter. Personal consumption expenditures continued to moderate, marking their weakest advance since the fourth quarter of 1987. However, unlike the previous quarter, spending on durable goods picked up, (this category includes furniture, household equipment, and automobiles) while consumers shied away from nondurable food and energy products. Despite declining interest rates, cautious builders and developers awaited signs of stronger market activity, leading to a two-quarter consecutive decline in investment in both residential and nonresidential structures. Investment continued on producers' durable equipment, showing manufacturers are still making efforts to expand capacity, recently strained by six and a half years of expansion. Finally, the U.S. trade sector was unable to carry the momentum of the first quarter into the second, as a stronger dollar encouraged imports while dampening exports somewhat. As a result, net exports added $2.4 billion to real GNP growth in the second quarter, substantially less than the $18.8 billion added by net exports in the first quarter.

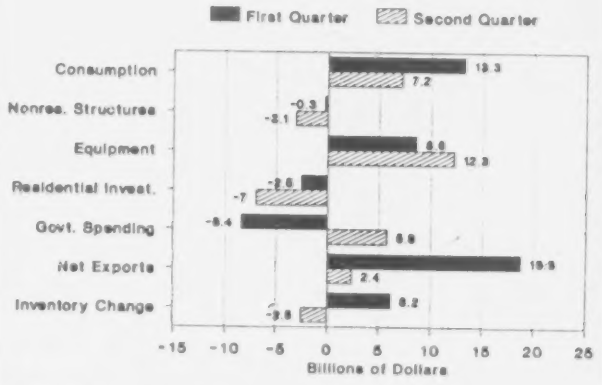
Manufacturers Keep Tight Reign on Inventories

Inventory investment, which subtracted $2.5 billion from real GNP growth in the second quarter, has held a steady course of restraint over the past year. Large inventories late in an expansion can often contribute to a recession as businesses cut back production in order to sell off their excess stocks in the face of slow demand. Aside from technological advances in communications and transportation, which are generally credited for the recent progress in inventory management, the absence of substantial price increases may have discouraged the stockpiling witnessed during past business cycles. The current low manufacturing inventory-to-sales ratio is cited as an indication that businesses have managed their inventories well in the current expansion. Prior to the 1981-82 recession, the ratio fluctuated around 1.9 percent. Throughout 1989, it has remained below 1.6 percent.

GRAPH 1: THE ECONOMIC OUTLOOK

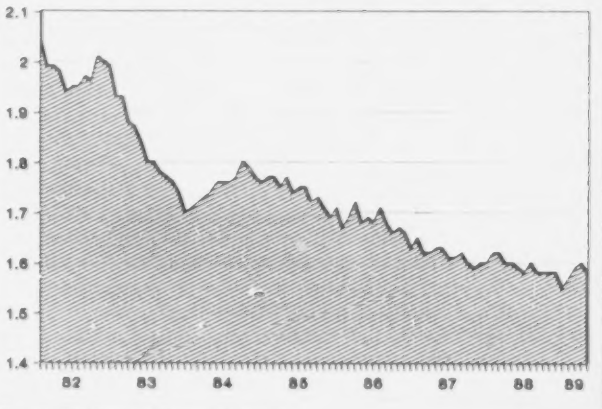


GRAPH 2: THE COMPOSITION OF GNP GROWTH



Source: Department of Commerce

GRAPH 3: INVENTORY-TO-SALES RATIO REMAINS UNDER CONTROL AT THE NATIONS' FACTORIES



Source: The Bureau of Economic Analysis.

Monthly Indicators Signal Slower Growth

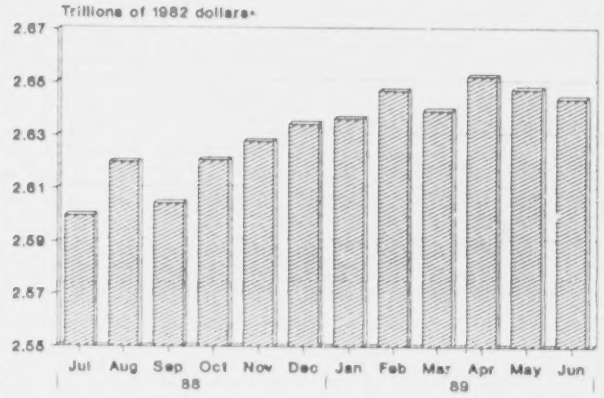
A variety of monthly economic indicators continued to forecast slower economic growth. The closely watched Purchasing Managers index fell for the third consecutive month in June to 46 percent. Historically, a dip in the index to levels near 44 percent are generally associated with a recession (reports higher than 50 percent usually indicate an economic expansion). Other recent indications of a slowing economy included a 0.4 percent decline in retail sales, a 0.2 percent drop in industrial production, a 0.8 percent drop in construction spending, and a 0.1 percent fall in the index of leading indicators. Graph 5 shows the course of real personal consumption expenditures over the past year. For the past two months, consumer spending has been virtually at a standstill, leading to a decline in real, or inflation-adjusted, expenditures. Consumers have scaled back their purchases of durable goods for the second month in a row, while moderating their spending on nondurables and services. Moreover, in terms of 1982 dollars, only nondurable expenditures registered a gain in June. With consumption making up almost two-thirds of total GNP, slower spending will likely continue to retard economic growth. There is an encouraging footnote to slower consumer spending: the personal savings rate, falling dramatically during the early years of this consumption-led expansion, has risen by almost one and a half percentage points during the first six months of 1989, reaching 5.9 percent in June.

One of the first monthly indicators on the state of third quarter economic growth is the July employment report, released just as this newsletter went to print. The Labor Department estimates that private non-agricultural employment increased by 195 thousand jobs in July, pulling the unemployment rate down to 5.2 percent from 5.3 percent. Most of the employment increase originated from service sector gains. While manufacturing sector employment growth was flat in July, other portions of the employment report suggested the economy is still growing moderately. Specifically, both the average workweek and the index of aggregate weekly hours increased, as did average hourly earnings.

MONETARY POLICY AND INTEREST RATES

After months of steep increases, the consumer price index posted a modest 0.2 percent gain in June, while the producer price index actually declined 0.1 percent in the same period. The encouraging news took the spotlight off inflation and instead focused attention on the sagging economy. In response, the Fed has allowed the federal funds rate to drop fifty basis points to 9.0 percent. Financial institutions quickly followed suit and lowered the prime rate to 10.5 percent from 11.0 percent. We expect that the Fed will continue to ease during the late summer and early fall. However, in the absence of any substantial retreat of inflation, financial markets will most likely keep long-term rates from falling much below their current levels, as inflation expectations remain within the range of 4 to 5 percent. In fact, we expect to see a slight increase at the long end of the yield curve towards the end of the year, leading to a more "normal" shaped yield curve than we have seen in recent months. As a result, mortgage rates will probably bottom out just above 9 percent before possibly rising modestly in late 1989.

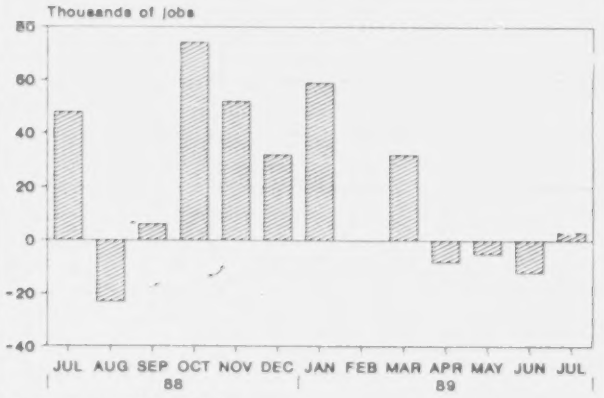
GRAPH 4: REAL PERSONAL SPENDING SLOWS



*seasonally adjusted annual rates

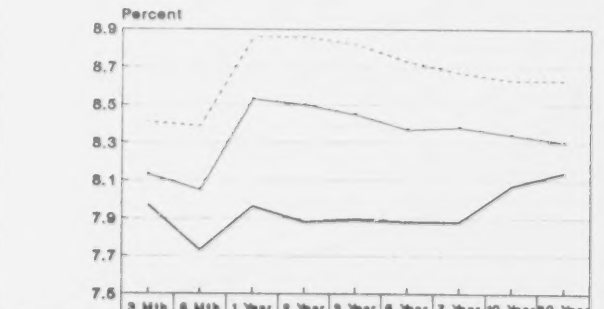
Source: The Bureau of Economic Analysis

GRAPH 5: MANUFACTURERS CUT PAYROLLS IN THE SECOND QUARTER



Source: Bureau of Labor Statistics

GRAPH 6: THE YIELD CURVE



	3 Mth	6 Mth	1 Year	2 Year	5 Year	6 Year	7 Year	10 Year	30 Year
May 26 ----	8.41	8.39	8.86	8.86	8.82	8.73	8.67	8.63	8.63
Jun 23 ——	8.13	8.05	8.53	8.5	8.45	8.37	8.38	8.34	8.3
Jul 29 ——	7.97	7.73	7.98	7.88	7.89	7.88	7.88	8.07	8.14

Source: The Federal Reserve Board.

HOUSING STARTS

(Seasonally Adjusted Annual Rates, in Thousands)

NATIONAL DATA

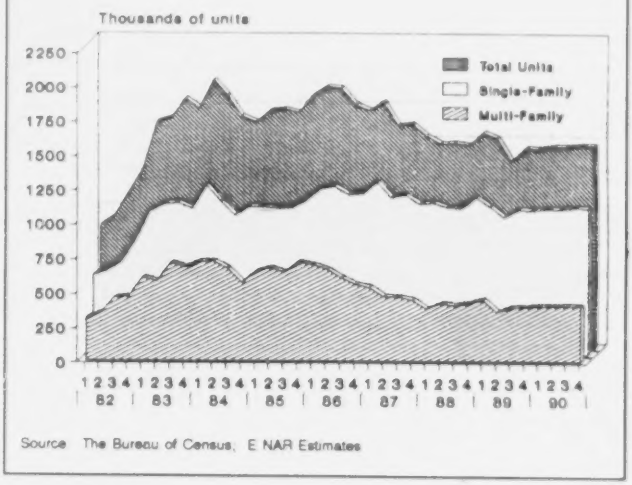
		Total	S-F	2-4	5 and up
Jun	1989	1400	975	53	372
May	1989	1309	977	40	292
Apr	1989	1343	1029	62	252
Mar	1989	1409	981	50	378
Feb	1989	1465	1029	62	374
Jun	1988	1463	1088	62	313
Jun 1989 Changes From:					
May	1989	7.0%	-0.2%	32.5%	27.4%
Jun	1988	-4.3%	-10.4%	-14.5%	18.9%

REGIONAL DATA

		Northeast	Midwest	South	West
Jun	1989	171	238	548	443
May	1989	180	246	518	365
Apr	1989	207	274	526	336
Mar	1989	160	308	552	389
Feb	1989	224	273	572	396
Jun	1988	238	262	585	378
Jun 1989 Changes From:					
May	1989	-5.0%	-3.3%	5.8%	21.4%
Jun	1988	-28.2%	-9.5%	-6.3%	17.2%

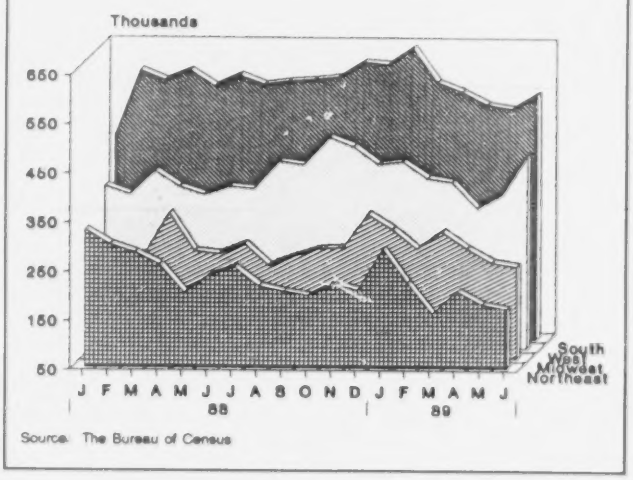
Source: Bureau of the Census; Construction Reports, Series C20

GRAPH 7: HOUSING STARTS



Source: The Bureau of Census; E.NAR Estimates

GRAPH 8: HOUSING STARTS BY REGION



Source: The Bureau of Census

Starts of privately owned homes jumped 7.0 percent in June to a seasonally adjusted annual rate of 1.4 million units. The increase (the first in five months) was not spurred by the long-awaited rebound of the single-family market, but rather by a 28.0 percent jump in the construction of multi-family units. Starts of single-family homes, which have fallen by more than 18 percent since January, are generally far more dependent on interest rates and economic conditions than the construction of multi-family units and thus offer a better gauge of the residential construction industry's health. The reluctance on the part of builders to step up the rate of single-family starts despite falling interest rates is an indication that the housing industry remains concerned and uncertain over the future health of the economy. However, given the recent uptick in sales of both new and existing single-family homes during June, we expect to see a moderate increase in the rate of starts in the coming months.

The only region to retain a strong rate of housing starts in 1989 has been the West, where starts rose 21.4 percent in June to 443 thousand units, 17.2 percent faster than a year ago. While starts were up in the South by 5.8 percent during June, they were 6.3 percent below the rate of starts in June of 1988. Starts in the Northeast and Midwest have fallen for four of the past five months, leaving starts 41.6 percent below their January 1989 rate in the Northeast, and leading to a cumulative five month decline of 24.0 percent in the Midwest.

NEW HOME SALES

(Seasonally Adjusted Annual Rates, in Thousands)

NATIONAL DATA

Jun 1989	670	Nov 1988	650
May 1989	635	Oct 1988	718
Apr 1989	609	Sep 1988	691
Mar 1989	555	Aug 1988	712
Feb 1989	621	Jul 1988	701
Jan 1989	700	Jun 1988	716
Dec 1988	669		

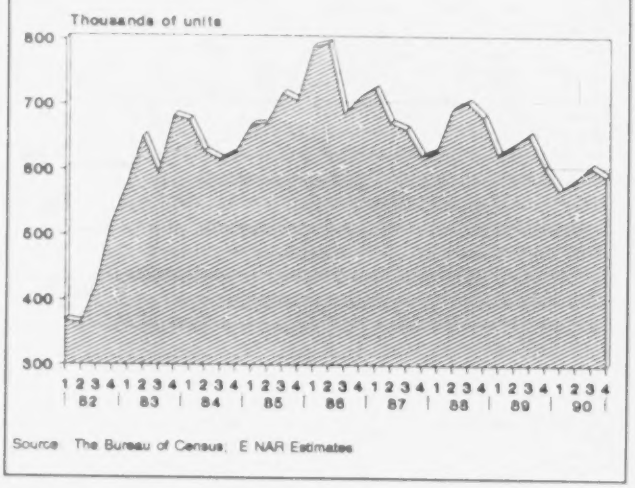
June 1989 Changes From:		Annual Totals:	
May 1989	5.5%	1987	671
Jun 1988	-6.4%	1988	676

REGIONAL DATA

	Northeast	Midwest	South	West
Jun 1989	72	99	267	232
May 1989	88	96	262	188
Apr 1989	82	101	244	183
Mar 1989	107	99	201	148
Feb 1989	84	103	236	198
Jan 1989	121	106	265	207
Jun 1988	114	93	286	223
1988	101	97	276	202
1987	117	97	271	186
June 1989 Changes From:				
May 1989	-18.2%	3.1%	1.9%	23.4%
Jun 1988	-36.8%	6.5%	-6.6%	4.0%

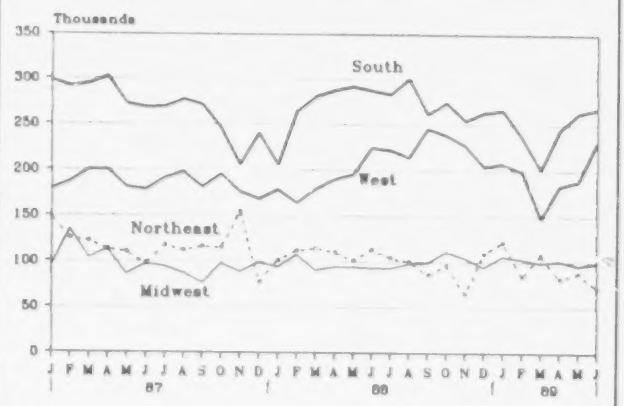
Source: Bureau of the Census, Construction Reports, Series C25

GRAPH 9: NEW HOME SALES



Source: The Bureau of Census, E NAR Estimates

GRAPH 10: NEW HOME SALES BY REGION



Source: The Bureau of Census

Sales of new single-family homes continued to rise in June, climbing 5.5 percent to a seasonally adjusted annual rate of 670 thousand units. Sales have risen 20.9 percent over the past three months, from their 1989 low of a 555 thousand unit annual rate set in March. However, even with the encouraging sales activity of recent months, new home sales remain 4.3 percent below the January 1989 rate of 700 thousand units and 6.4 percent below the rate of a year ago. Putting annual rates aside, sales totaled 342 thousand units in the first six months of 1989, compared with 363 thousand during the first half of last year.

The recent steady rise in new home sales has not been shared by all four regions. On the contrary, sales in the Midwest have stagnated in 1989, while in the Northeast sales have plunged 40.5 percent since January. On the other side of the ledger, new single-family home sales in both the South and West have rebounded beyond their January 1989 levels. In the case of the West, sales were up 4 percent over June of 1988. However, at the midpoint of 1989, only the Midwest has reported a 1989 first half increase in total new home sales over the first six months of 1988. In the first six months of 1989, total sales were down 16.1 percent in the Northeast, 10 percent in the South and unchanged in the West.

EXISTING SINGLE-FAMILY HOME SALES

(Seasonally Adjusted Annual Rates, in Thousands)

NATIONAL DATA

Jun 1989	3400	Nov 1988	3710
May 1989	3210	Oct 1988	3680
Apr 1989	3400	Sep 1988	3650
Mar 1989	3400	Aug 1988	3690
Feb 1989	3480	Jul 1988	3650
Jan 1989	3550	Jun 1988	3800
Dec 1988	3920		

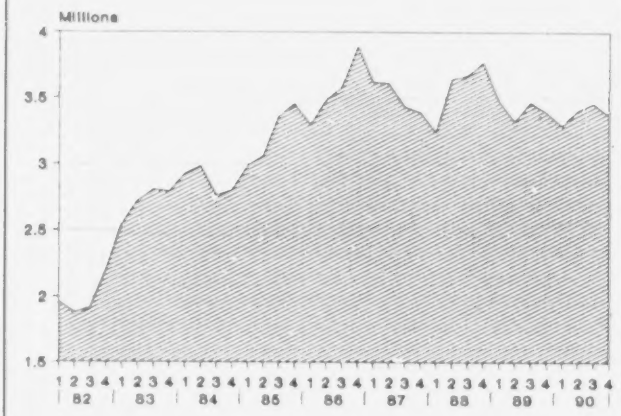
Jun 1988 Changes From:		Annual Totals:	
May 1989	5.9%	1988	3594
Jun 1988	-10.5%	1987	3526

REGIONAL DATA

	Northeast	Midwest	South	West
Jun 1989	550	960	1280	610
May 1989	610	810	1230	580
Apr 1989	610	890	1280	620
Mar 1989	570	870	1270	670
Feb 1989	600	920	1310	640
Jan 1989	710	930	1310	630
Dec 1988	700	1010	1500	700
Jun 1988	720	1000	1410	680
1988	673	929	1350	642
1987	685	959	1282	600
Jun 1989 Changes From:				
May 1989	-9.8%	18.6%	4.1%	5.2%
Jun 1988	-23.6%	-4.0%	-9.2%	-10.3%

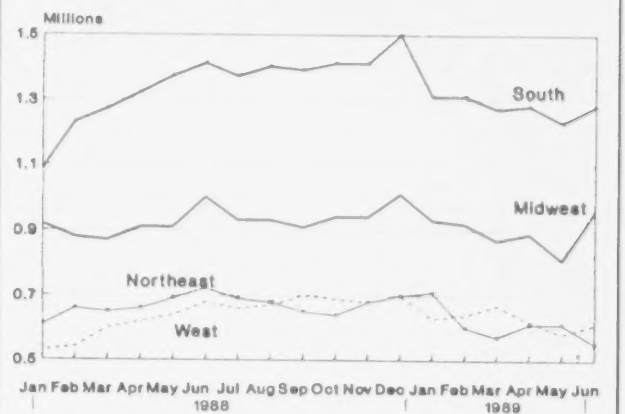
Source: NATIONAL ASSOCIATION OF REALTORS®, Economics and Research Division

GRAPH 11: EXISTING HOME SALES



Source: The Bureau of Census; E NAR Estimates

GRAPH 12: EXISTING HOME SALES BY REGION



Source: NAR Economics and Research; E NAR Estimates

Encouraged by lower mortgage rates, sales of existing single-family homes moved forward for the first time in 1989, rising 5.9 percent in June to an annual rate of 3.4 million. Fixed rate mortgages fell to an average of 10.07 percent in June, slightly easing the affordability crunch which has kept many potential buyers out of the market since late last year. And while the healthy sales increase (the largest monthly climb in 32 months) showed housing demand remains buoyant, we do not expect further large gains in the coming months, despite continued interest rate declines which had brought fixed rate mortgages to 9.87 percent at the end of July. Slow employment growth and a sluggish economy will most likely keep the monthly home sales numbers between 3.3 million and 3.5 million units throughout the second half. Sales of existing single-family homes are forecasted to improve modestly in the next few months before falling again at the end of this year.

Regionally, sales picked up in every region except the Northeast, with the Midwest recording the largest gains. The housing market in the Northeast continues to struggle under the weight of high housing costs. Sales in the Northeast dropped 9.8 percent in June, and are 23.6 percent below the 720 thousand unit annual rate set last June. Meanwhile, sales in the Midwest jumped 18.6 percent to an annual rate of 960 thousand units, their strongest rate of 1989. Sales in the West and South were up 5.2 percent and 4.1 percent, respectively. Even with the pick up in home sales, none of the four regions posted gains over the sales rates set in June of 1988.

SINGLE-FAMILY HOME PRICES

	Median		Average	
	Existing	New	Existing	New
Jun 1989	$93,200	$129,900	$118,700	$159,100
May 1989	92,600	120,000	118,000	146,800
Apr 1989	92,900	117,600	118,000	144,500
Mar 1989	92,000	123,000	116,100	149,000
Feb 1989	91,900	118,000	117,800	145,300
Jun 1988	$90,200	$111,500	$115,400	$136,500
1988	89,300	112,500	112,800	138,300
1987	85,600	104,500	106,300	127,200
Jun 1989 Changes From:				
May 1989	0.6%	8.2%	0.6%	8.4%
Jun 1988	3.3%	16.5%	2.9%	16.6%

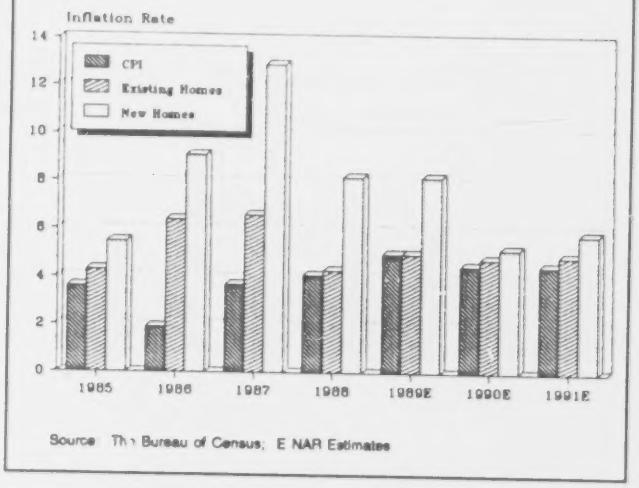
REGIONAL DATA

MEDIAN SALES PRICE OF AN EXISTING HOME

	Northeast	Midwest	South	West
Jun 1989	$149,800	$72,100	$84,900	$134,100
May 1989	143,800	70,300	84,100	142,300
Apr 1989	144,000	70,400	85,200	142,700
Mar 1989	143,600	69,900	84,000	138,000
Feb 1989	142,600	69,900	86,700	127,800
Jun 1988	$147,300	$70,000	$83,900	$127,000
1988	143,000	68,400	82,200	124,900
1987	133,300	66,000	80,400	113,200
Jun 1989 Changes From:				
May 1989	4.2%	2.6%	0.9%	-5.8%
Jun 1988	1.7%	3.0%	1.2%	5.6%

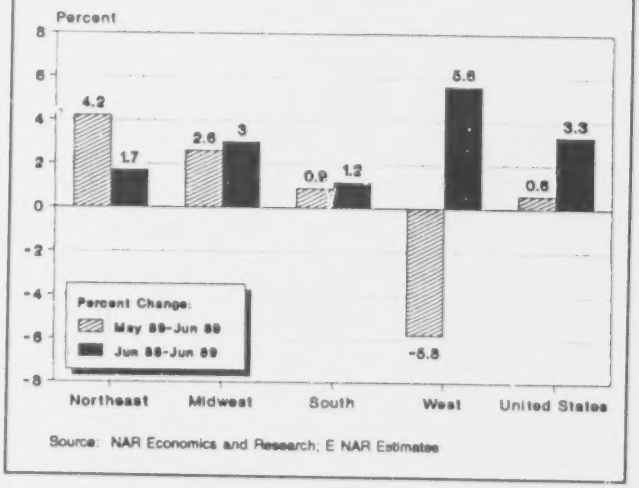
Source: NATIONAL ASSOCIATION OF REALTORS®, Economics and Research Division

GRAPH 13: HOME PRICES



Source: The Bureau of Census; E NAR Estimates

GRAPH 14: HOME PRICES BY REGION



Source: NAR Economics and Research; E NAR Estimates

Despite the surge in existing home sales, prices increased only modestly in June, creeping up 0.6 percent to a median price of $93,200. The median price of a new home jumped 8.2 percent to $129,900, or 16.5 percent above the median price of a year ago. The moderate increase in the price of an existing single-family home is probably explained by the easing of affordability pressures during June. As declining interest rates made it possible for lower-income prospective homebuyers to qualify for a mortgage, their purchases of modestly priced homes most likely kept the median sales price from rising substantially, despite increased demand. Moreover, much of the increase in sales activity occurred in the Midwest, where homes are priced well below the national median.

Prices of existing single-family homes rose in three out of the four regions, with the Northeast reporting the largest gains. The median sales price of an existing home in the Northeast rose 4.2 percent in June to $149,800. However, even with this substantial one month climb prices were only 1.7 percent above the median of a year ago. The sales price of the median home in the West dropped 5.8 percent from May to June, but was 5.6 percent above the June 1988 median price. The Midwest is the only region where prices have risen for three consecutive months, rising 2.6 percent in June to $72,100. Prices inched up 0.9 percent in the South to $84,900.

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INFLATIONARY DISTORTIONS AND REAL ESTATE PROVISIONS

The purpose of the depreciation allowance is to write off the portion of the cost of a depreciable asset that is used up in producing the income of the firm. However, during inflationary periods, depreciation deductions based on historical costs will not permit the tax-free recovery of the cost of the asset as it wears out.

Several proposals have been suggested by economists to correct depreciation for inflation. The first proposal would allow depreciation deductions based on replacement costs (based on an official index). The second proposal would allow the historical cost to be adjusted for inflation as measured by the rise in the average of all prices. The final proposal would allow an immediate deduction for the present value of the future economic depreciation that firms could claim. The three proposals are effectively identical if the replacement price of the asset rises by the same amount as the average of all prices.

Inflation and Depreciation Deductions

The depreciation deduction is distorted during inflationary periods because inflation reduces the real value of the deduction. As mentioned before, this distortion occurs because under current law, depreciation is based on the historical cost of the productive asset.

For example, assume a piece of equipment (Capital good A) purchased for $10,000, is expected to last for 10 years, and is assumed to depreciate at the rate of 10 percent per year (straight line). This means that the firm will deduct $1,000 a year for 10 years as depreciation deduction for tax purposes.[1] Also assume that the real interest rate (which is approximately, the market interest rate minus the inflation rate) is 4 percent. The present value of the depreciation deduction for this equipment is $8,111 if there is no expected inflation. However, as Table 1 indicates, the present value of the depreciation deduction for this equipment becomes smaller as inflation increases. In fact, the deduction falls to almost half its real value under a 15 percent inflation rate scenario. Thus, the interaction between inflation and the depreciation deduction reduces the incentive to invest in productive assets during inflationary periods.

The interaction of inflation and historical cost depreciation deductions also distorts investor preferences towards short-lived assets. For example, consider a case where an investor has a choice of investing in two capital goods which produce the same output, both in quantity and quality. Capital good A has a useful life of 10 years and costs $10,000. Capital good B has a useful life of 2 years and costs $2,000.[2] With no inflation, both capital goods would yield the same real value of depreciation deductions. However, capital good B becomes more attractive relative to capital good A in the presence of inflation as Table 1 illustrates. The present value of the depreciation deductions (for a ten year period) is higher for the shorter-lived asset (capital B) during inflationary times.

Inflation Indexation

If the depreciation deduction is adjusted by indexing the historical cost of the productive asset, then the real value of the depreciation deduction will not be sensitive to the inflation rate. Table 2 shows the depreciation deduction that would be taken under the indexation proposal under alternative inflation rate assumptions and is applicable for both capital goods A and B. While a greater nominal amount must be taken each year as a deduction for greater rates of inflation, the present value of the deductions are the same regardless of the inflation rate. Moreover, the present value is independent of the life of the asset. Thus, indexing the cost of the asset for inflation eliminates the incentive to reduce investments in depreciable productive assets and makes the choice of asset-life inflation neutral.

Other Aspects of Depreciation Deduction

The previous analysis ignored current tax law treatment of depreciation by assuming that the depreciation based on historical cost is allowed at the "true" rate. Deviations of tax depreciation from true, or economic depreciation will affect investor behavior. If tax depreciation is allowed at a faster rate than economic depreciation, investment will be stimulated. However, the incentive to invest will be reduced if depreciation is allowed at a slower rate under the tax law than economic depreciation.

Accelerated depreciation methods have been justified in the past on the grounds of inflation. However, they are only an approximation to actual adjustments for inflation and can only achieve this goal accidentally. To illustrate this point, let us go back to capital good A, which has a useful life of 10 years and is assumed to have a true depreciation pattern that is straight line. Recall that the present value of the inflation indexed depreciation deductions is $8,111. If the tax-life of capital good A is shortened to 5 years (straight line), it would roughly correct for inflation at the rate of 3 percent, but shorter tax lives are required to compensate for higher inflation rates (see Table 3). On the other hand, at very low inflation rates close to zero, a 5 year tax-life would be overly generous.

Tax depreciation can also deviate from economic depreciation if the allowed method of tax depreciation is different from the true pattern of depreciation. Over the years, several methods of depreciation have been allowed under the tax code. The straight-line method simply allows the cost of the asset to be spread evenly over its useful life. The declining-balance method and the sum-of-the-years' digits method assume that a larger share of the total depreciation occurs in the earlier years. Table 4 illustrates the differences in the three methods.

The alternative methods have implications for the real value of the depreciation deduction and investor behavior. If the true pattern of depreciation is straight-line, then the alternative methods will give the taxpayer a depreciation deduction that is greater than necessary. However, if the true pattern is double-declining balance, or sum-of-the-years' digits, then tax depreciation under the straight-line method would not allow the total cost of the depreciable asset to be recovered tax-free. If the true pattern of depreciation is not reflected in the tax law, inflation may either increase or decrease the bias. For example, if the true pattern of depreciation is straight-line, use of double-declining balance for tax purposes would alleviate the distortion caused by inflation to a certain degree. However, if the reverse were true, the distortion would be exacerbated.

Conclusion

The presence of inflation reduces the real value of depreciation deductions for tax purposes, making investments in depreciable assets less attractive during inflationary periods. Economists have proposed several methods of dealing with the inflation, but these proposals have not been adopted. However, some economists have observed that the government appears to be pursuing the ad hoc strategy of dealing with inflation by changing the tax depreciation schedules in response to a change in inflation.[3] These ad hoc strategies can only approximately correct for inflation, and in many cases, will under-correct for inflation.

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1.This also assumes that the tax law requires depreciation to be deducted at the "true" rate.

2.This example taken from Yeats, Kevin, "The Tax Treatment of Real Estate Depreciation" National Association of Realtors® Research Paper, July 1988.

3.See Follain, James R., Hendershott, Patric H. and Ling, David C., "Understanding the Real Estate Provisions of Tax Reform: Motivation and Impact" National Tax Journal Vol XL, No. 3, 1988: 363-372, for evidence of this strategy.

Table 1
Present Value[1] of
Depreciation Deduction Under
Alternative Inflation Rates

	Inflation Rates				
	0%	3%	5%	10%	15%
Capital Good A[2]	8,111	6,985	6,362	5,136	4,250
Capital Good B[3]	8,111	7,762	7,544	7,045	6,602

[1] Based on a 10 year period
[2] Assumed to cost $10,000 with a useful life of 10 years, 4% real interest rate
[3] Assumed to cost $2,000 with a useful life of 2 years, 4% real interest rate.

Table 2
Depreciation Deduction with
Indexation for Inflation

Time	Inflation rates				
Period	0%	3%	5%	10%	15%
1	1,000	1,030	1,050	1,100	1,150
2	1,000	1,061	1,103	1,210	1,323
3	1,000	1,093	1,158	1,331	1,521
4	1,000	1,126	1,216	1,464	1,749
5	1,000	1,159	1,276	1,611	2,011
6	1,000	1,194	1,340	1,772	2,313
7	1,000	1,230	1,407	1,949	2,660
8	1,000	1,267	1,477	2,144	3,059
9	1,000	1,305	1,551	2,358	3,518
10	1,000	1,344	1,629	2,594	4,046
TOTAL	10,000	11,808	13,207	17,531	23,349
Present Value	8,111	8,111	8,111	8,111	8,111

Table 3
Effects of Accelerated Depreciation Under Alternative Inflation Rates

	Inflation Rates				
	0%	3%	5%	10%	15%
Present Value Under 10 Year Depreciation Schedule	8,111	6,985	6,362	5,136	4,250
Present Value Under 5 Year Depreciation Schedule	8,904	8,174	7,739	6,801	6,034

Assumptions: Purchase Price of $10,000. Useful life of 10 years. Tax life of 5 years. 4% real interest.

Table 4
Comparison of Depreciation Methods

	Straight Line	Double Declining Balance[1]	Sum-of-the-years' Digit
1	1,000	2,000	1,818
2	1,000	1,600	1,636
3	1,000	1,280	1,455
4	1,000	1,024	1,273
5	1,000	819	1,091
6	1,000	655	909
7	1,000	655	727
8	1,000	655	545
9	1,000	655	364
10	1,000	655	182
TOTAL	10,000	10,000	10,000
Present Value at 4% real interest and inflation rate at:			
0%	8,111	8,487	8,587
3%	6,985	7,560	7,700
5%	6,362	7,037	7,191
10%	5,136	5,979	6,142
15%	4,250	5,182	5,334

[1]With switch to straight line when profitable.

INCREASING SINGLES AND AGING "BOOMERS" -- Impacts on Household Finances and Implications for Housing

The demographic composition of the U.S. population is generally accepted as a force behind overall consumption types and levels, savings rates, household formation and numerous other phenomena. There are two particularly noteworthy changes occurring now and projected to increase in the future. The first is the passage of the baby boomers, those individuals born between 1946 and 1964 when the population was increasing especially rapidly, through middle age; the second is the prognosis for continued strong growth in the share of single-person households. While these phenomena will impact many areas such as education, transportation, etc., this article will focus on their impacts on household financial resources and the implications for household formation and housing.

Financial Resources -- Profiles of Select Household Types

Access to financial resources is critical to a household's initial formation and then to purchasing or renting suitable housing. Financial resources include the flows of wage and salary income, dividends and interest, capital gains, government subsidies, social security and private pension benefits, child support, and alimony. But they also include stocks of household assets, net wealth, and savings. The cost of forming a household is determined by house prices; contract rents; mortgage rates, instruments and underwriting criteria; utility, fuel, maintenance and repair costs; property insurance; real estate taxes; and closing costs on home acquisition.

If costs of household formation are high relative to financial availability, young people often will delay household formation. This phenomenon was evident during the early 1980s when mortgage rates peaked at nearly 15 percent (1982), thereby increasing the cost of housing and homeownership. After increasing by an average of 1.51 million per year from 1975 to 1980, total U.S. households grew by only 1.31 million per year during the first half of the 1980s.

A household's ability to rent or purchase housing depends primarily on its income, either to make rental payments or to meet ongoing expenses of homeownership, i.e., to meet principal and interest payments on mortgages, real estate taxes, insurance, maintenance and repairs, and fuel and utility expenses. In addition, the ability of a household to make the transition to homeownership depends primarily on having stocks of household wealth and savings adequate to meet the often formidable upfront home acquisition costs of equity downpayment, prepaid interest expenses, prepaid mortgage insurance premiums, transfer taxes, and other fees for services associated with closing the home sale.

The 1983 and 1986 Surveys of Consumer Finances give insight into the financial, and changing financial, positions of U.S. households, particularly those features most integral to household formation, housing purchases, and homeownership.[1] Tables 1 through 3 provide snapshots of the financial positions of four household types -- single-person, all married couples, married couples without children, married couples with children -- within three age cohorts: households headed by members born from 1946 to 1964; households headed by members born from 1925 to 1945; and households headed by members born before 1925.[2] We will refer to the first group as they are commonly called "baby boomers," the second group as the "pre-baby boom generation" and the third group as the "elderly."[3]

An important determinant of housing affordability is net worth/wealth. Tables 1 through 3 indicate that married owners of each type and in each age cohort had greater 1986 net worth, excluding home equity, than did their renting counterparts. (Unless otherwise indicated, net worth comparisons do not include homeowners' net equity in their homes.) The 1986 net worth of married owners ranged from $18,379 for baby boomers with children at home to $54,783 for pre-baby boomers with children at home. The 1986 typical net worth of married renters was far less than for owners, ranging from $3,865 for pre-baby boomers with children to $35,030 for pre-baby boomers without children.

Inclusion of home equity in the 1986 net worth of homeowners widens the gap in net worth between married owners and married renters, demonstrating the importance of home equity in household wealth accumulation. (See Tables 1 through 3.) When home equity is included, typical net worth of married owners in the pre-baby boom and elderly generations is in the $100,000 to $128,000 range. With less time to have accumulated home equity, married owners of the baby boom generation had about half as much wealth -- $51,446 for marrieds without children and $51,628 for marrieds with children living at home.

Tables 1 through 3 also show that single-person households which own generally possessed greater net worth in 1986 than did single-person households which rent. Among baby boomers, single owners had roughly three times more net worth, on average, than did single renters, $27,065 vs. $9,000; when home equity is included, the gap widens to $46,290 vs. $9,000. The difference in net worth between single owners and single renters is even more pronounced for the pre-baby boom generation, $16,025 vs. $2,149; when net home equity is included, the gap becomes $52,003 vs. $2,149. The story is similar for the elderly --

$2,067 in 1986 net worth for the typical single renter, $9,500 in 1986 net worth for the typical single homeowner, and $60,088 when home equity is included in the net worth of the typical single homeowner.

Tables 1 through 3 show that single owners in the baby boom generation typically had greater net worth than did single owners in older generations despite their having had less time to accumulate wealth. Single owners in the baby boom generation typically had net worth of $27,065 vs. $16,025 for the pre-baby boom generation and $9,500 for the elderly. When home equity is included, the baby boomers still fare well, lagging the pre-baby boom generation by only $6,000 ($46,290 vs. $52,003) and the elderly by only $14,000 ($46,290 vs. $60,088).

An important aspect of net worth, particularly concerning renters' ability to purchase homes, is its liquidity, or ease of conversion to home downpayment and closing costs. Tables 1 through 3 show that for each age cohort, married owners typically have larger amounts of liquid assets than do married renters.[4] The many married baby boom renters would seem to be highly prospective homeowners. However, in 1986 their median liquid assets ranged from $500 for marrieds with children at home to $2,000 for marrieds without children at home, not large amounts relative to upfront cash needed to purchase a home in most housing markets.

Greater liquidity of owners than of renters is not limited to married households. Tables 1 through 3 also indicate that financial portfolios of single owners include more liquid assets than do portfolios of single renters. Among the pre-baby boom generation, single owners had median liquid assets over three times as large as for single renters ($3,500 vs. $1,025). Likewise among the elderly, single owners had median liquid assets of $5,601 compared with $378 for single renters. Among baby boomers, single owners had a median $10,000 of liquid assets, single renters $3,500.

That the $10,000 in liquid assets for single owner, baby boomers compares favorably with the liquid assets of both the pre-baby boom and elderly married owners is interesting for two reasons. First, liquid assets of married households would be expected to be higher than those of single-person households due to two-earner households in many cases. Second, pre-baby boom and elderly households have had considerably more time to accumulate liquid assets than have baby boomers. This may indicate an affluent group of single-person households, or it may simply indicate less of a preference for liquidity by married and older households.

While net worth and liquid assets primarily affect a household's ability to make the transition from renting to owning, household income has greater implications for a household's ability to maintain ongoing expenses of renting or owning. Tables 1 through 3 reveal average incomes for each category of owners that are greater than for corresponding renters.[5] Average incomes ranged from $5,840 for elderly single renters to $36,667 for pre-baby boom married owners with children at home. Moreover, for married owners and renters, incomes appear to follow the life-cycle; for single owners and renters, incomes do not.

The savings rates (as measured by the change in net worth from 1983 to 1986 as a percent of income) of homeowners, shown in Tables 1 through 3, are higher in most cases than the savings rates of renters.[6] The savings rates of homeowners, excluding change in their net home equity, ranged from 0.0 percent for elderly single owners to 19.5 percent for single owners of the baby boom generation. (Unless otherwise indicated, savings rate comparisons do not include homeowners' changes in net equity in their homes.) This 19.5 percent saving rate is high relative to the savings rates of the single owners of the other age cohorts, 1.5 percent for the pre-baby boomers and 0.0 percent for the elderly. It is also high relative to the savings rate for married owners of the same generation.

When change in net home equity is included in savings, homeowners of each age cohort had savings rates between 15 and 25 percent (except for elderly marrieds with children at home, who had a savings rate of 7.3 percent). In contrast, savings rates of renters ranged from -0.5 percent for elderly single renters to 9.2 percent for single renters of the baby boom generation.

Both single and married renters of the baby boom generation appear to save more than did their predecessors, perhaps indicating their greater affluence or greater preference for future consumption. While baby boom renters had typical savings rates of about 6.0 percent for marrieds and 9.0 percent for singles, typical savings rates for pre-baby boom renters and elderly renters were significantly lower, ranging from -0.5 percent for elderly singles to 3.5 percent for elderly marrieds.

Household Financial Profiles -- Implications for Housing

What implications for the housing market can we draw from the evidence presented? Typically, for two of the age cohorts, married households from the 1983 and 1986 Surveys of Consumer Finances have substantially more net worth/wealth than other household types, perhaps due to dual earners in many cases. If this relationship between married couple households and net worth remains true, then the prognosis for increasing single-person households could result in more households with less wealth per household. This would likely yield an increased demand for rental units and/or less expensive (due to less square feet, fewer amenities, etc.) owner-occupied units. The single baby boomers, however, appear to be a more affluent group than the single-person households of preceding generations. For both owners and renters, the 1986 net worth of single baby boomers is typically even greater than that of married baby boomer households which often have two earners. Even when home equity is considered, the net worth of single owners lags that of married owners of the baby boom by only a little. This may indicate that the singles of the baby boom generation are more the career professionals who have postponed marriage, while more of the singles of previous

generations are those who are divorced or those who postponed or forewent marriage and family due to their inability to support such a household. If many of the single-person households of the baby-bust and subsequent generations are as affluent as the singles of the baby boom appear to be, then the forecast growth in single-person households will not likely have negative implications on the demand for homeownership.[7]

Incomes of the three age cohorts augur well for household formation in that household incomes appear to follow the life-cycle. That is, income for the pre-baby boom generation is higher than the other two age cohorts. If this pattern holds, then incomes will increase for the swollen ranks of the baby boomers entering their peak earning years.[8] Increasing income would make household formation more affordable, thereby increasing it. The split of the newly formed households between renters and owners would depend to some extent on the magnitude of the increase in income relative to the fixed costs of running a household. Housing costs have outpaced income in recent years in many markets, thereby decreasing renters' abilities to save for homes.

No clear pattern emerges on the savings rates of our three age cohorts, perhaps due to the way in which the rates are calculated. (Their calculation is also most likely the reason why they appear higher than those often quoted.) For example, among both owner and renter single-person households, baby boomers had the highest savings rates of the three cohorts. The high savings rates for single renters of the baby boom would suggest that, given the desire to do so, many of them will be able to buy homes in the near future. The high savings rate of single homeowners of the baby boom suggests that, given the desire to do so, many of them are well-positioned to "trade-up" to more expensive homes. The "trade-up" market should be helped further if the savings of the married homeowners of the baby boom match the savings of the pre-baby boom generation at the same age.

I would like to dedicate this article to Daniel N. Chambers, formerly the Director of Housing Research, who died in June. His research ideas, editorial comments and suggestions on other studies guided me in writing this article.

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1.The surveys were jointly sponsored by the Board of Governors of the Federal Reserve System and several other government agencies. For details on the surveys, see Robert B. Avery and Gregory E. Elliehausen, 1983 Survey of Consumer Finances: Technical Manual and Codebook, Board of Governors of the Federal Reserve System, and the corresponding 1986 manual by Avery and Arthur B. Kennickell.

2.Households for the following analysis include only what the U.S. Bureau of the Census defines as "primary individuals" or "families."

3.Unfortunately, the sample did not include enough households headed by members born after 1964, commonly referred to as the "baby bust", to provide reliable statistics for this group.

4.The only exception is among elderly married couples with children at home, wherein renters have more liquid assets than do owners. But the sample of elderly married couples with children at home who rent is too small to provide meaningful averages.

5.The elderly married couples with children at home are the exception but, as noted previously, their small number makes comparisons with this group unreliable.

6.This is consistent with findings of other studies. See Daniel N. Chambers and Mary B. Schwartz,"Owner-Renter Differences in Political and Social Involvement, Housing Maintenance and Savings Choices," research paper for the NATIONAL ASSOCIATION OF REALTORS®, (January 1989).

7.Of course, there are many other considerations such as the expected mobility of these increased singles. Because even if the successive generations of single-person households are affluent, studies have suggested that when a household's expectation of moving in the near future is high, its probability of purchasing a home is low. This would tend to increase the demand for rental housing. See John Simonson, "Prospective First-time Homebuyers: Salient Characteristics and Their Implications," research paper for NATIONAL ASSOCIATION OF REALTORS®, (February 1989).

8.The counter argument is that the income shares of different age groups are relatively stable over time. So that the increase in income share due to an increase in the share of the population in their "peak earning" years would be offset by lower wages due to decreased demand for workers in this age group.

Table 1

FINANCIAL PROFILE OF BABY BOOMERS, BY TENURE AND MARITAL STATUS, 1986[a] (Except where noted, values are medians)

	Owners				Renters				
	Single	All Married	Married w/o Children	Married w/ Children	Single	All Married	Married w/o Children	Married w/ Children	All Baby Boomers
Liquid Assets[b]	$10,000	$3,050	$5,500	$3,000	$3,500	$800	$2,000	$500	$2,000
Net Worth (w/o home equity)	46,290 (27,065)	51,538 (18,975)	51,446 (23,454)	51,628 (18,379)	9,000	5,541	7,228	5,003	20,634 (9,480)
Income[c]	23,333	30,333	30,500	30,000	21,489	18,000	20,667	16,967	22,333
Savings Rate[d] (w/o change in home equity)	23.7% (19.5%)	17.3% (7.3%)	21.5% (12.4%)	17.0% (6.9%)	9.2%	5.5%	6.3%	5.2%	9.2% (5.3%)
Number of Households	40	484	76	408	80	117	27	90	947

NOTE: All of the households broken down by owner/renter in the Table are "families" or "primary individuals" as defined by the U.S. Bureau of the Census. However, due to the inclusion of an additional 226 non family and non primary individual households, the number of "All Baby Boomers" is not equal to the sum of single owners, all married owners, single renters and all married renters. Households from both the area probability and high income samples are included. Also, only households which were in both the 1983 and 1986 Surveys of Consumer Finances are included.

a Households headed by members born between 1946 and 1964, inclusive.

b Liquid assets include stocks and mutual funds, bonds, checking and savings accounts and money market accounts and CDs.

c Income is the average of the median 1983, 1984 and 1985 annual incomes. It is probably best viewed as a measure of "permanent income."

d Savings rate is calculated as the change in household net worth from 1983 to 1986 as a percent of household income from 1983 through 1985. The first savings rate includes the change in home equity; the parenthesized rate does not.

Source: 1983 and 1986 Surveys of Consumer Finances, Board of Governors of the Federal Reserve System (tabulations of unpublished data).

Table 2

FINANCIAL PROFILE OF PRE-BABY BOOM GENERATION, BY TENURE AND MARITAL STATUS, 1986[a] (Except where noted, values are medians)

	Owners				Renters				
	Single	All Married	Married w/o Children	Married w/ Children	Single	All Married	Married w/o Children	Married w/ Children	All Pre-Baby Boomers
Liquid Assets[b]	$3,500	$8,400	$9,200	$8,300	$1,025	$1,000	$5,500	$400	$4,200
Net Worth (w/o home equity)	52,003 (16,025)	126,006 (51,620)	113,446 (47,230)	128,424 (54,783)	2,149	5,900	35,030	3,865	70,542 (22,628)
Income[c]	15,833	35,333	31,333	36,667	13,166	24,333	25,833	20,100	28,662
Savings Rate[d] (w/o change in home equity)	14.8% (1.5%)	22.7% (11.4%)	22.8% (8.7%)	22.7% (12.0%)	3.3%	2.4%	0.6%	2.6%	14.2% (4.8%)
Number of Households	83	699	263	436	62	90	62	28	1096

NOTE: All of the households broken down by owner/renter in the Table are "families" or "primary individuals" as defined by the U.S. Bureau of the Census. However, due to the inclusion of an additional 162 non family and non primary individual households, the number of "All Pre-Baby Boomers" is not equal to the sum of single owners, all married owners, single renters and all married renters. Households from both the area probability and high income samples are included. Also, only households which were in both the 1983 and 1986 Surveys of Consumer Finances are included.

a Households headed by members born between 1925 and 1945, inclusive.

b Liquid assets include stocks and mutual funds, bonds, checking and savings accounts and money market accounts and CDs.

c Income is the average of the median 1983, 1984 and 1985 annual incomes. It is probably best viewed as a measure of "permanent income."

d Savings rate is calculated as the change in household net worth from 1983 to 1986 as a percent of household income from 1983 through 1985. The first savings rate includes the change in home equity; the parenthesized rate does not.

Source: 1983 and 1986 Surveys of Consumer Finances, Board of Governors of the Federal Reserve System (tabulations of unpublished data).

Table 3

FINANCIAL PROFILE OF ELDERLY
BY TENURE AND MARITAL STATUS, 1986[a] (Except where noted, values are medians)

	Owners				Renters				
	Single	All Married	Married w/o Children	Married w/ Children	Single	All Married	Married w/o Children	Married w/ Children	All Elderly
Liquid Assets[b]	$5,601	$12,000	$15,000	$4,623	$378	$3,000	$3,000	$10,000	$5,601
Net Worth (w/o home equity)	60,088 (9,500)	110,093 (49,800)	112,691 (50,029)	100,135 (35,928)	2,067	11,000	11,000	24,376	59,898 (16,427)
Income[c]	8,230	17,920	16,000	21,000	5,840	15,543	11,319	25,000	12,115
Savings Rate[d] (w/o change in home equity)	20.4% (0.0%)	22.9% (9.2%)	24.0% (9.1%)	7.3% (9.3%)	-0.5%	3.5%	1.0%	10.9%	7.0% (1.0%)
Number of Households	171	412	366	46	78	22	20	2	776

NOTE: All of the households broken down by owner/renter in the Table are "families" or "primary individuals" as defined by the U.S. Bureau of the Census. However, due to the inclusion of an additional 93 non family and non primary individual households, the number of "All Elderly" is not equal to the sum of single owners, all married owners, single renters and all married renters. Households from both the area probability and high income samples are included. Also, only households which were in both the 1983 and 1986 Surveys of Consumer Finances are included.

a Households headed by members born before 1925.

b Liquid assets include stocks and mutual funds, bonds, checking and savings accounts and money market accounts and CDs.

c Income is the average of the median 1983, 1984 and 1985 annual incomes. It is probably best viewed as a measure of "permanent income."

d Savings rate is calculated as the change in household net worth from 1983 to 1986 as a percent of household income from 1983 through 1985. The first savings rate includes the change in home equity; the parenthesized rate does not.

Source: 1983 and 1986 Surveys of Consumer Finances, Board of Governors of the Federal Reserve System (tabulations of unpublished data).

U.S. ECONOMIC OUTLOOK

AUGUST 1989

	QUARTERS								YEARS				
	ACTUAL		FORECAST						ACTUAL		FORECAST		
	1989.1	1989.2	89.3	89.4	90.1	90.2	90.3	90.4	1987	1988	1989	1990	1991
AGGREGATE ECONOMY													
Gross National Product (billions of dollars)	5113	5195	5265	5340	5425	5497	5570	5647	4524	4881	5228	5535	5883
% Change	7.9	6.6	5.5	5.9	6.5	5.4	5.5	5.6	6.9	7.9	7.1	5.9	6.3
% Change (w/out inflation)	3.7	1.7	1.2	1.7	1.6	1.5	1.6	1.9	3.7	4.4	2.6	1.6	2.4
Consumer Price Inflation (CPI)	5.4	6.4	3.8	4.3	4.7	4.4	4.3	4.3	3.7	4.1	5.0	4.5	4.5
GNP Inflation (GNP Deflator)	4.0	4.9	4.1	4.1	4.8	3.9	3.7	3.7	3.1	3.3	4.4	4.2	4.0
Unemployment Rate - Civilian	5.2	5.3	5.4	5.4	5.5	5.6	5.7	5.7	6.2	5.5	5.3	5.6	5.4
Civilian Employment-Household Basis (millions)	116.9	117.3	117.5	117.8	117.9	118.1	118.4	118.7	112.4	115.0	117.4	118.3	119.8
Percent change	3.7	1.3	0.7	0.9	0.7	0.6	0.8	1.1	2.6	2.3	2.1	0.8	1.3
Index of Industrial Production	140.7	141.4	141.6	142.2	142.7	143.1	143.7	144.3	129.8	137.2	141.5	143.4	147.2
Manufacturing Capacity Utilization	84.4	84.1	83.6	83.2	83.2	83.8	84.1	84.6	81.0	83.6	83.8	83.9	86.5
Domestic Auto Sales	6.9	7.3	7.2	7.0	6.9	7.0	7.0	7.0	7.1	7.5	7.1	7.0	7.1
Federal Tax Receipts (NIPA) as % of GNP	20.3	20.3	20.1	20.1	20.6	20.6	20.6	20.6	20.1	19.9	20.2	20.6	20.6
Federal Expenditures (NIPA) as % of GNP	23.2	23.1	22.8	22.7	23.0	22.8	22.7	22.5	23.7	22.9	22.9	22.8	22.4
Deficit(NIPA)	-147.5	-145.0	-141.6	-134.4	-130.5	-122.7	-115.5	-107.9	-161.3	-145.9	-142.1	-119.2	-104.4
as % of GNP	-2.9	-2.8	-2.7	-2.5	-2.4	-2.2	-2.1	-1.9	-3.6	-3.0	-2.7	-2.2	-1.8
REAL ESTATE MARKETS													
HOME SALES													
Total Single-family Home Sales (thousands, single-family resales plus 97 percent of single-family starts)	4515	4284	4485	4405	4315	4429	4486	4400	4648	4650	4422	4407	4448
Percent change – year ago	1.5	-2.0	-4.0	-6.1	-4.4	3.4	0.0	-0.1	-1.4	0.0	-4.9	-0.3	0.9
Existing Single-family Home Sales (thousands)	3477	3320	3465	3390	3290	3405	3455	3370	3526	3594	3413	3380	3445
Percent change – year ago	5.4	-8.9	-5.4	-10.1	-5.4	2.6	-0.3	-0.6	-1.1	1.9	-5.0	-1.0	1.9
Housing Starts (thousands)	1517	1351	1445	1441	1457	1457	1467	1465	1634	1495	1438	1461	1410
Percent change – year ago	2.8	-6.6	-1.5	-7.6	-4.0	7.9	1.5	1.7	-9.8	-8.5	-3.8	1.6	-3.5
Single-Family Units	1070	994	1051	1047	1056	1055	1063	1062	1156	1088	1040	1059	1034
Percent change – year ago	-2.3	-8.1	-0.9	-8.1	-1.2	6.2	1.1	1.5	-2.2	-5.9	-4.4	1.8	-2.4
Multi-Family Units	448	357	393	394	401	402	404	403	477	407	398	402	375
2-4 Family Units	59	52	57	57	58	58	58	58	65	59	56	58	54
Percent change – year ago	6.0	-10.4	-0.1	-12.7	-2.3	12.5	2.6	2.2	-23.0	-9.5	-4.7	3.5	-6.7
5+ Family Units	388	305	336	337	343	344	345	344	412	348	342	344	321
Percent change – year ago	19.2	-15.3	-3.6	-5.1	-11.7	12.5	2.6	2.2	-24.4	-15.6	-1.7	0.7	-6.7
New Single-family Home Sales (thousands)	625	638	655	605	570	585	607	592	671	677	631	589	639
Percent change – year ago	9.3	-1.1	-11.8	-8.3	-10.9	-8.5	-4.9	-5.9	-10.5	0.9	-6.8	-6.7	8.5
HOME PRICES													
Existing Home Prices - Median $(1000)	91.2	92.9	94.9	96.1	96.6	97.5	99.3	99.7	85.6	89.3	93.8	98.3	103.1
Percent change – year ago	3.9	4.5	5.2	8.3	5.9	5.0	4.6	3.7	6.6	4.3	5.0	4.8	4.9
New Home Prices - Median $(1000)	118.0	122.2	123.1	123.7	124.7	127.2	129.5	131.0	104.0	112.5	121.8	128.1	135.5
Percent change – year ago	4.5	8.2	7.1	7.8	5.7	4.1	5.2	5.9	13.0	8.2	8.3	5.2	5.8
FINANCIAL MARKETS													
Long-Term Interest Rates													
30-year FRM (FHA Secondary)	10.9	10.5	9.9	9.8	10.0	10.1	10.3	10.3	10.2	10.5	10.2	9.3	9.3
1-year ARM (without buydown)	8.8	9.0	8.7	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.8	8.5	8.6
Corporate AAA Bond Rate	9.7	9.5	9.0	9.0	9.2	9.2	9.2	9.2	9.4	9.7	9.2	8.4	8.4
Government Bond Rate	9.0	8.7	8.3	8.3	8.4	8.5	8.5	8.5	8.6	9.0	8.4	7.6	7.6
Short-Term Interest Rates													
Federal Funds Rate	9.4	9.7	8.9	8.5	8.5	8.2	8.2	8.2	6.7	7.6	9.2	8.2	8.3
3-month T-Bill Rate	8.5	8.4	8.0	7.8	7.7	7.5	7.4	7.4	5.8	6.7	8.1	7.1	7.2
Prime Rate	11.0	11.4	10.8	10.4	10.3	10.0	10.0	10.0	8.2	9.3	10.9	10.0	10.0
Discount Rate	6.7	7.0	7.0	6.8	6.5	6.3	6.3	6.2	5.7	6.2	6.9	6.3	6.2
Value of the U.S. Dollar (Trade-Weighted Avg.)	96.0	100.4	98.4	96.1	94.3	92.8	91.6	90.7	96.9	92.8	97.7	92.4	88.7
Percent change	13.5	19.7	-7.7	-8.9	-7.4	-6.2	-5.0	-3.8	-13.6	-4.3	5.4	-5.5	-4.0

Source: Forecast produced using Laurence H. Meyer and Associates' model of the U.S. economy.
Assumptions and simulations by Dr. John Tuccillo, Dr Frederick Flick, Sean Burns and Beth Maerz.

EQUAL HOUSING OPPORTUNITY